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ABSTRACT

A comparison of the end-of-study versus months-to-years later levels of language proficiency of 49 students of Japanese at Cornell University, from both intensive and nonintensive programs, is reported. In addition to academic records and performance on the Japanese Proficiency Test, data obtained from a comprehensive background questionnaire covering language training and contact, relevant travel, language attitudes, motivation, learning style preferences, self-evaluation of language skills, other related information, and results of several interviews and case studies were analyzed. It was found that: (1) the questionnaire developed for this study was highly appropriate for obtaining student-based information concerning language-learning background, skill levels, and other data relevant to language attrition; (2) attriting and nonattriting students differed little in initial language ability or formal language training; (3) decreases in proficiency over time were inversely related to degree of language use; (4) attrition may be skill-specific; (5) case studies corroborated group data analyses; and (6) re-acquisition of skills might be faster with familiar rather than unfamiliar language learning materials. Results suggest that studies of changes in student performance use a test battery providing both general assessment and a more highly diagnostic, item-by-item probing of language elements, and that future studies include analyses of attrition patterns for subgroups at several proficiency levels as well as whole-group analyses. The questionnaire is appended. (MSE)

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A Study of Language Attrition in Former U.S. Students of Japanese and Implications for Design of Curriculum and Teaching Materials

Final Project Report

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A Study of Language Attrition in Former U.S. Students of Japanese and Implications for Design of Curriculum and Teaching Materials*

BACKGROUND OF THE PROJECT

A major problem in foreign language instruction is that of maintaining and reinforcing the student's language skills once the initial formal training program has been completed. This language-loss-following-instruction phenomenon, variously referred to as language erosion, language backsliding, or language attrition, is a familiar one to language learners, who often find themselves unable to make effective use of a previously studied language on those occasions (such as for travel or study abroad, or in connection with business pursuits) when this competence would be of real practical utility. The problem of language attrition is also familiar to planners and administrators of federal and private sector programs abroad, for whom the availability of a consistent pool of language-qualified individuals for these programs is seriously diminished as a result of the same phenomenon.

Development of an effective solution to the language attrition problem would appear to require detailed attention to two major research areas. First, it would be necessary to re-examine the initial teaching curriculum with a view toward placing more stress on those language aspects that attrition studies would suggest as being quickly lost unless learned to a high level of proficiency initially. Second, it would be necessary to develop procedures and associated materials that could be used most effectively to re-train, on both individual and group bases, those particular language aspects that are found to undergo the greatest attrition following instruction.

It is unfortunately the case that the language teaching profession is presently quite far removed from being in a position to respond to these instruc-

*Funding for the reported project was provided by a grant from the Japan-United States Friendship Commission, whose interest in and support of this effort are gratefully acknowledged.

tional needs. Indeed, it is only fairly recently that the relevant research/developmental questions have begun to be addressed in any degree of detail, with major impetus being provided by the convening, in May 1980, of a large-scale invitational conference at the University of Pennsylvania, under the direction of Dr. Richard D. Lambert, to present and discuss a series of commissioned working papers on the nature of language skill attrition and development of procedures for measuring language skill change over time. The proceedings of this conference were published in 1982 in a volume entitled The Loss of Language Skills,[1] which may be considered the most comprehensive current source of information and research recommendations in the language attrition area.

The second major outcome of the 1980 conference was the awarding of start-up funding (through the National Endowment for the Humanities and subsequently the Department of Education) for the establishment of a formal Language Attrition Project, co-directed by Richard D. Lambert, University of Pennsylvania, and G. Richard Tucker, Center for Applied Linguistics, with the assistance of a national advisory committee of eight prominent language specialists and researchers. (Parenthetically, it should be noted that the 1980 conference sparked the interest of a group of European researchers as well. Lambert and Tucker were invited to participate in a planning seminar at the Catholic University of Nijmegen in October 1982 to discuss the development and implementation of a language attrition research agenda for Dutch social scientists. The initial results of their work will be reported in a symposium chaired by Theo van Els and G. R. Tucker to be held as part of the International Association of Applied Linguistics meeting scheduled for Brussells in August 1984.)

Since its establishment, the U.S.-based Language Attrition Project has begun an in-depth study of the language acquisition, retention, and attrition

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[1] Lambert, Richard D. and Barbara F. Freed, eds. The Loss of Language Skills. Rowley, MA: Newbury House, 1982.

patterns of students and graduates of four Department of Education-sponsored Advanced Overseas Language Training Programs for Arabic (Cairo), Chinese (Taipei), Hindi (New Delhi), and Japanese (Tokyo). This study involves the collection and analysis of a large quantity of information concerning the students' formal language-study history, informal language contacts, self-study activities, extent of motivation for language study, and other variables considered to affect the nature and extent of language acquisition, and relates these data to measured levels of language proficiency at each of several chronological points, including upon entry to the overseas center program, near the completion of training and, for selected graduates, a few months to several years after they have completed the program.

Although the four-center study outlined briefly above was expected to provide a considerable amount of information on the extent and course of language attrition within the context of the overseas center programs and the students participating in them, it was realized that this would represent only one--and in many respects a somewhat specialized--paradigm of language study, exposure, and use. In order to extend the s ope of the language attrition project to include language-learning paradigms whose principal component is U.S.-based instruction (rather than intensive in-country training), a grant request was made to the Japan-United States Friendship Commission to permit the carrying out of an additional, specially focused study having as its primary goal the investigation of language learning/attrition patterns associated with typical Japanese training programs in the United States, including both regular and intensive programs. Funding was subsequently received from the Commission to conduct a "Study of Language Attrition in Former U.S. Students of Japanese and Implications for Design of Curriculum and Teaching Materials," for which the present document constitutes the final project report.

PROJECT PROCEDURES

The Japanese attrition study was initiated in October 1981 and focused on obtaining attrition-relevant information primarily from students in the Cornell Japanese programs, both the "regular" (non-intensive) and highly intensive FALCON[2] program, the latter involving over 1,200 instructional contact hours within a single calendar year. The collection and analysis of three basic types of data was initially contemplated:

(1) As a measure of end-of-training achievement, to examine individual student course records, end-of-course achievement tests, and other materials (e.g., oral interview tapes, writing exercises) reflecting the students' language competence at or near the completion of the training program. It was hoped that these materials would be especially useful in determining specific aspects of Japanese that were or were not controlled by the students at that particular point in time (as opposed to more general or global proficiency information).

(2) As a non curriculum-specific measure of oral and written comprehension, scores on the Japanese Proficiency Test (JPT), a nationally normed test of listening comprehension and reading proficiency making use of "real-life" spoken materials and printed texts, selected independently of any particular program or course of study. This test, developed by Educational Testing Service (ETS) under an earlier grant from the Japan-U.S. Friendship Commission and normed (in part) at Cornell in spring 1979, was intended to provide a global indication of proficiency within the broad skill areas covered. In addition, it was anticipated that analysis of student responses to individual test items would permit the determination of specific aspects of Japanese lexicon or structure, in both aural and written modes, that were known or not known by students at the time of testing.

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[2]FALCON (Full-Year Asian Language Concentration) is a full-time, full calendar year intensive language program offered at Cornell University, during which participating students are not permitted to enroll in any other courses.

(3) A comprehensive background information questionnaire, to be completed by students in the study and providing detailed information on each participant's language-learning history and related matters, including the type and number of Japanese language courses taken, opportunities for informal (non-academic) contact with the language, nature and duration of study abroad or other residence abroad, attitudes toward and motivation for learning Japanese, and a variety of other factors known or presumed to influence the nature and extent of language performance change over time. This questionnaire would also include several descriptive scales of language performance in each of the four skill areas, along which the students would be asked to self-appraise their own level of competence both at the present time and, on a retrospective basis, on completion of their initial training program.

For selected students who had collectively been involved in a variety of types of language learning, subsequent use, and attrition situations, detailed face-to-face language proficiency interviews and debriefings on a "case study" basis were also conducted. These are summarized in a later section of the report.

With respect to the information to be obtained from the Japanese Proficiency Test, end-of-training scores were available for each of the 49 Cornell graduates who had taken the JPT during the norming administration in spring 1979, as well as from several other Cornell students who had subsequently taken the JPT at or near the end of their training program. In addition, as originally envisioned in the project planning, an attempt was made to identify and locate additional Japanese program graduates from among the 37 other institutions that had participated in the 1979 administration of the test. Upon requesting the necessary information from the ETS files, a major technical problem was encountered in that several of the archival records of the 1979 administration had been inadvertently destroyed, including especially the

codings by which each of the participating institutions had been identified in the test score database. As a result, although the JPT scores of each of the 669 students tested during the norming administration were still maintained in the ETS files (and, with the consent of the individual students, could be made available to the project), there was no administratively feasible way to determine at what institution a given student had been enrolled at the time of testing or, by the same token, to trace the student's current location through university or language department records. Although it subsequently became possible to identify a small number of non-Cornell JPT takers through other means, the database retrieval problem meant that the number of students for which it would be possible to obtain both end-of-training and current scores on the JPT was, for all practical purposes, limited to the 49 members of the 1979 test admistration at Cornell. However, notwithstanding the quite small group of students for which it was ultimately possible to obtain and analyze both end-of-training and current scores on the JPT, the information thus provided, in addition to being of interest in its own right, was found to generally corroborate the student self-reports of previous and current language competence obtained from the student background questionnaire, whose design and content are described in detail below.

Preparation of the student background questionnaire--formally designated as "Language Attrition Project: Personal Information Form" (PIF) and reproduced in full as Appendix A--was considerably aided by earlier questionnaire development efforts of the Language Attrition Project.[3] The completed questionnaire, which underwent a series of drafts and revisions on the basis of small-scale clinical testing, consisted of five major sections. The first section requested basic biographical data (age, sex, current address, date and place of birth, and native language) as well as the identification of "any languages other than

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[3]The contribution of Mr. (now Dr.) Peter B. McCagg (Georgetown University graduate student and research assistant) to the work of this project, especially in the development and trial administration of the PIF, is gratefully acknowledged.

English, including Japanese if applicable, that were spoken regularly in your home while you were growing up." The second section provided for the identification of any primary or secondary school grades (1-12), college (Freshman-Senior) or graduate school (Grad 1-Grad 4) years in which any non-English language (including Japanese) was formally studied.

The third section, constituting one of the two proficiency self-report scales used in the questionnaire, asked the student to indicate, for both listening/speaking and for reading comprehension, which of six verbal descriptions of proficiency best characterized his or her maximum proficiency attained in Japanese and (separately) in any other languages studied, and in each instance to indicate the approximate date at which proficiency was at its highest. These verbal descriptions, based generally on the Foreign Service Institute (FSI) "absolute proficiency" scales[4] but with some modifications intended to make them more immediately meaningful to nonspecialist readers, were intended to cover the full range of proficiency from essentially no functional command of the language ("My speech in the language is limited to a few words and I have great difficulty understanding the language, even when it is spoken very slowly. I cannot really communicate any information in the language") to complete native fluency ("My speech is indistinguishable from that of an educated native speaker of the language"). The corresponding range of level descriptions for reading comprehension was from "I cannot really read anything in the language, or can read only a few words that I have 'memorized'" to "My reading ability is equivalent to that of a university-educated native speaker."

Some indication of learning style preferences was sought in two questions, one asking the student to indicate, on a 5-point scale, "how easy or difficult [listed activities] are or have been for you:

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[4]For a detailed description of the FSI rating scale and associated interviewing procedure, see Wilds, Claudia P., "The Oral Interview Test, pp. 29-44 in Randall L. Jones and Bernard Spolsky, eds., Testing Language Proficiency. Washington, DC: Center for Applied Linguistics, 1975.

learning to speak a foreign language
learning to understand a foreign language when it is spoken
learning to read a foreign language

learning to read Japanese
learning to understand spoken Japanese
learning to read Japanese."

A related question asked the student how he or she "best learn[s] a new word or phrase in a foreign language (check one):

by hearing the word or phrase repeated several times
by repeating the word or phrase aloud
by seeing the word or phrase written out."

An indication of the student's motivation for learning Japanese as being generally "integrative" or "instrumental" in nature[5] was sought through a dichotomous forced choice:

I wanted to learn Japanese because I was attracted to Japanese customs and lifestyles, and I wanted to get to know better the Japanese people.

I wanted to learn Japanese because I believed it would be advantageous, in pursuit of my career goals, to know the language.

In addition to indicating the school grades or academic years in which Japanese or other languages had been studied, the student was asked (for Japanese only) to "list all the formal courses you have taken in Japanese. Include both courses aimed at providing basic language skills as well as courses in which Japanese was the language of instruction (e.g., literature courses, linguistics or language structure courses)." After listing all such courses on the response grid provided, the student was asked to indicate the overall duration of the course; the number of scheduled contact hours per week; whether the course was taught by native or by non-native speakers of Japanese (or both); whether the course laid primary stress on listening and speaking skills as opposed to reading skills or placed "more or less equal stress on both"; and whether the course involved modern or classical Japanese.

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[5] Cf., Gardner Robert C. and Lambert, Wallace E. Attitudes and Motivation in Second Language Learning. Rowley, MA: Newbury House, 1972.

Equally detailed information was requested concerning any visits of longer than one month that the student had made to Japan, including, in each instance: the purpose of the visit (as a student or for research, teaching, journalism, military service, other government service, missionary work, tourism, visiting relatives. as a childhood resident, or "other"); the inclusive dates of the visit; and the "extent of use" of Japanese for (separately) listening, speaking, and reading during that visit, as indicated on a 5-point scale ranging from "little or no use" to "extensive use."

Two major sections of the questionnaire were devoted, respectively, to student self-report of: (1) "The extent to which you use or used your Japanese skills (regardless of your level of proficiency)"; and (2) "the degree of ease or difficulty with which you are (or were) able to carry out [each of several language-use] activities" (regardless of actual extent of performance of these activities). In both instances, for extent of use and for degree of ease or difficulty in accomplishing the specified language tasks, students were asked to make separate judgments of their own situation at each of two times: "at present" and "just at the end of your formal study of Japanese." For "extent of use" at each of these two times, response options were "never," "rarely," "occasionally," and "frequently/regularly." For "degree of ease or difficulty," possible responses were "[with] extreme difficulty," "considerable difficulty," "some difficulty," and "little or no difficulty."

Typical activity descriptions for the extent-of-use question (see Appendix A for complete listing) included items such as:

Conversing with native Japanese speaker(s) at home
Conversing with native Japanese speakers(s) in the course of your work
Conversing with native Japanese speakers on the telephone
Listening to Japanese radio programs
Watching Japanese TV programs
Listening to Japanese vocal music
Reading letters that are typed
Reading letters that are written in careful script
Reading newspapers or magazines
Reading professional journals or articles
Interpreting Japanese to English informally

Typical language-performance tasks enumerated in the degree of ease or difficulty question included:

Giving simple biographical information about yourself (e.g., place of birth, family, early schooling)
Describing your job or advanced study
Getting around town
Talking on the phone
Interacting professionally with Japanese co-workers
Following a conversation when there are several people talking at once
Giving an extemporaneous talk on a familiar topic
Teaching a class using Japanese as the language of instruction
Reading personal letters that are typed
Reading personal letters that are written in careful script
Reading novels or other literature
Reading professional journal articles
Interpreting informally from Japanese into English

For the extent of use question, in addition to the "at present" and "at end of formal study" response columns, a third column, "at some other time," was provided, to be used by students whose greatest extent of use of any of the listed language skills was at "some time other than either presently or just at the end of your formal Japanese study. Similarly, for the degree of ease or difficulty question, a third "at some other time" column was provided, to which the student was asked to attend after having marked both the "at present" and "at end of formal study" columns for all items. Instructions for working with the "at some other time" column were:

> Third, please re-read carefully each of the activity descriptions shown in the table and ask yourself, for each, whether you were able to carry out that activity, using acceptable and appropriate Japanese, with greater ease/facility at some time other than either presently or just at the end of your formal Japanese study.

Students making any use of the "at some other time" column were also asked, in each instance, to "describe, in as few words as possible, the circumstances involved in this period of greatest facility." As discussed in the analysis section of the report, comparison of the "at present" degree of ease or difficulty reported by the students to that reported for "end of formal study" (or to that "at some other time") provided an operational criterion for attrition or

lack of attrition for each of the language competencies enumerated.

A final, more globally oriented question was intended to serve as a general comparison check on the more detailed information provided in the preceding question. For each of eight language areas--"listening comprehension," "accurate pronunciation," "fluency in speaking," "grammatical accuracy," "appropriate use of speech levels," "vocabulary," "recognition of characters," and "reading comprehension"--the student was asked to indicate "how the level of your ability has changed in the time since you stopped formal Japanese study," using a 5-point scale ranging from "total or near total loss" (1), through "no change" (3), to "great gain" (5).

Although for the reasons previously discussed it was possible to obtain two sets of JPT scores (at end-of-training and currently) for only a small number of students, these data are nonetheless of value as an objective external criterion of language performance change in the passive skills of oral and written comprehension, with which it is possible to evaluate the probable degree of accuracy of the student self-appraisals of language proficiency in these skills provided in the Personal Information Form.

Within the PIF, the specific questions most closely related both conceptually and operationally to the observed "end-of-training vs. current" JPT score differences were those asking for the student's self-appraisal of language proficiency changes that had taken place "in the time since you stopped formal Japanese study." Responses on a 5-point scale ranging from (1) "total or near total loss"; through (3) "no change"; to (5) "great gain" were requested concerning the amount of change that had been experienced in:

a. listening comprehension
b. accurate pronunciation
c. fluency in speaking
d. grammatical accuracy
e. appropriate use of speech levels
f. vocabulary
g. recognition of characters
h. reading comprehension.

ANALYSIS

Table 1 shows the Pearson product-moment correlations between (1) the observed JPT score differences (end-of-training minus current scores) for the nine students for whom two sets of JPT scores were available and, (2) student self-appraisals of changes in "level of ability" in each of the above areas.

Examination of these figures indicates, in most instances, a reasonably high positive correspondence between the observed test score differences for each of the three JPT subscores and self-ratings for the associated questionnaire items. The difference scores for JPT listening comprehension are fairly closely related to self-appraised "listening comprehension" change (r=.735), as well as to other entries that would be presumed to be at least marginally involved in this skill, including "fluency in speaking" (r=.719) and "appropriate use of speech levels" (r=.709). Self-ratings of "vocabulary" and "grammatical accuracy" change are also strongly associated with JPT listening score differences, more so in each instance than they are with JPT reading comprehension, and possibly suggesting that the respondents were interpreting these two aspects primarily with respect to their role in oral interaction, rather than reading, situations. Student appraisals of changes in accuracy of pronunciation are not well correlated with JPT difference scores for listening comprehension (and, quite logically, even less so for character recognition and reading). This is probably due in part to the fact that the JPT does not measure in any direct way the production skill at issue, but may also reflect the informal impressions of both Japanese language teachers and learners that a reasonably firm command of the phonology of the language, once acquired, is not readily lost. As would of course be expected, self-appraised "recognition of characters" and "reading comprehension" correlate less highly with JPT listening comprehension than do the other speaking- and/or listening-related variables.

As a class, difference scores for JPT character recognition are less strongly related to the self-appraisal variables than are the corresponding JPT

Table 1

Correlations of Observed JPT Score Differences with Self-Appraisals of Language Proficiency Change (N=9)

Self Appraisal of Proficiency Change in	Difference Scores for JPT Listening Comprehension	JPT Character Recognition	JPT Reading
Listening Comprehension*	.735	.288	.454
Accurate Pronunciation	.326	-.082	.277
Fluency in Speaking*	.719	.426	.564
Grammatical Accuracy	.706	.265	.397
Appropriate Use of Speech Levels	.709	.185	.335
Vocabulary	.777	.344	.548
Recognition of Characters	.684	.482	.606
Reading Comprehension*	.632	.516	.612

*Starred variables are those used to define attrition categories for subsequent analysis.

reading comprehension scores; and in particular, "recognition of characters" self-ratings are more closely associated with JPT reading comprehension (r=.606) than they are with JPT character recognition (r=.482).

Consistent with anticipated results, self-appraised "reading comprehension" and "recognition of characters" are more strongly correlated with JPT-measured reading ability (r=.612 and .606, respectively) than are any of the other self-appraisal variables.

Although the observed correlations between self-appraised changes in language proficiency and observed score differences on the JPT suggest some degree of caution in data interpretation on an individual-student basis (for which r values of .85 or higher are usually sought), correlations of the magnitude obtained may be considered quite suitable for carrying out the general group analyses that are of primary interest in this study.

Before undertaking a comparative analysis of "attrition" and "non-attrition" students, it will be useful to describe briefly the entire participant group with respect to several broad characteristics. Of the 77 students who provided background questionnaire data, 43 were male and 34 female. With regard to measured proficiency in Japanese, as indicated by scores obtained on the JPT, the participants were, as a group, quite well-qualified by comparison to the nationwide JPT norming group. Current (i.e., project-administered) mean JPT scores for the listening comprehension, character recognition, and reading comprehension subsections of the JPT were 57.8, 55.2, and 57.5, respectively (N=77). These mean scores are in all three cases slightly above the 70th percentile for "intermediate-level" students in the original JPT norming population, although with a fairly large spread of individual student scores in each instance (standard deviations of 9.93, 10.46, and 10.66, respectively).

The students also tended to rate themselves relatively high in class standing with respect to other language students: to the question "Please indicate in which quartile of your language classes you usually found yourself in

relation to the other students in the class," 53 placed themselves in the "top 25%"; 14, in the "second 25%"; and 5, in the "third 25%" (5 non-responses).

Expressed motivation for learning Japanese was predominantly of the "integrative" rather than "instrumental" type, as indicated by the forced-choice question: "If you had to characterize your reasons for wanting to learn Japanese as one of the two statements below, which would you say better reflects your motivation (Please check only one.)

(a) I wanted to learn Japanese because I was attracted to Japanese customs and lifestyles, and I wanted to get to know better the Japanese people.

(b) I wanted to learn Japanese because I believed it would be advantageous, in the pursuit of my career goals, to know the language."

Almost twice as many (48) students selected the first, more integrative purpose (a) than the more instrumental purpose (b) (28 students; one omitted response).

With respect to preferred language learning modality, 53 of the respondents felt they were best able to "learn a new word or phrase in a foreign language" through a primarily oral mode, i.e., either by "hearing the word or phrase repeated several times" (24) or by "repeating the word or phrase aloud" (29). "Seeing the word or phrase written out" was considered a better learning technique by only 19 students.

A substantial majority of the participants (56) had studied Japanese with both native and non-native Japanese teachers; only one had had non-Japanese instructors exclusively. With regard to the general instructional emphasis of the Japanese courses, only 2 students noted that their courses, on the whole, placed "primary stress on listening and speaking skills" and only 7, that the primary stress was on "reading skills." The great majority (65) reported that there was "more or less equal stress on both."

Given the general language background represented by the entire study group, the next appropriate task was to attempt to determine, through direct

comparison of the questionnaire data for identified "attrition" and "non-attrition" sub-groups within the total student group, whether any gross differences in personal characteristics or instructional background could be discerned that might be related to attrition or lack of attrition in these instances. To carry out this comparison, self-ratings of language proficiency change for the 69 students for whom Personal Information Form data had been provided in sufficient detail to permit adequate processing were used to establish two broad "general attrition" and "non-attrition" groups, which were operationally defined as follows:

General Attrition Group - Students whose self-ratings of proficiency change in listening comprehension and reading comprehension "in the time since you stopped formal Japanese study" were either "1" (representing "total or near total loss") or "2" (representing a "some loss" point between "total or near total loss" and "no change".) (N=16) (Personal and background characteristics of two students who reported attrition only in reading and of nine students who reported attrition only in listening are included in the more detailed individual-skill analyses described later in this report.)

Non-Attrition Group - Students whose self-ratings of proficiency change in listening comprehension and reading comprehension were either at the "no change" level or indicated "some" or "great" gain.) (N=42)

The relatively high proportion of non-attriters in the study group may be attributed to a number of factors. Obviously, it was much easier to locate students who had continued in the field of Japanese studies, since they were either currently enrolled in more advanced courses or had completed their studies recently enough to still maintain contact with their instructors. Undoubtedly, another significant factor is the strong tendency toward continuing involvement in Japanese studies among those who have invested enough time and effort to learn Japanese to a useful level of proficiency. The majority of students whose motivation is sufficiently high to carry them beyond the elementary level of Japanese study tend to continue in the field. In this connection, it should be noted that the student group studied in this project does not include the many college students whose only contact with Japanese is a single-year part-time course. Based on previous observations, the language acquisition of such

students is so minimal that, except for commonly used ritual expressions and the most basic grammatical patterns, attrition is almost total after a comparatively short period of time away from the classroom.

Table 2 shows, in side-by side columns, the mean scores of the "attrition" and "non-attrition" groups, for each of a variety of questionnaire items for which this type of comparison is statistically appropriate. First, with regard to variables on which the two groups are not found to differ significantly, t-test comparisons of mean responses of the two groups on relevant PIF questions suggest that there is no appreciable difference between attriters and non-attriters in the ease with which they consider themselves able to learn foreign languages in general. To the question, "Please indicate on the following scale how easy or difficult the activities listed below are or have been for you," the three items "learning to speak a foreign language," "learning to understand a foreign language when it is spoken," and "learning to read a foreign language" were each judged--on a 5-point scale ranging from "very easy" (1) to "very difficult" (5)--to be somewhat on the easy side, with mean scores ranging from 2.38 to 2.76 across both groups. There was no significant difference in the rating tendencies of the two groups.

Of three similar items addressed specifically to the learning of Japanese "learning to [speak/understand/read] Japanese," only "speaking Japanese" barely reached statistical significance (at p=.05), with the non-attrition group considering this a somewhat more difficult task (3.07) than the attrition group (2.50). On the whole, these data suggest that the "attrition" and "non-attrition" students in the study tended, for the most part, to rate themselves similarly with regard to the perceived ease of learning both Japanese and languages in general.

Comparison of the amount of formal Japanese study engaged in by the two groups shows no significant difference in the number of years of non-intensive language study, although the mean number of years of such study is numerically

Table 2

Group Mean Differences for "Attrition" and "Non-Attrition" Students on Questionnaire Background Variables

Variable	Attrition Group (N=16)		Non-Attrition Group (N=42)		t
	Mean	S.D.	Mean	S.D.	* = p< .05 ** = p< .01
Reported ease learning to speak languages	2.44	1.15	2.74	1.04	-.96 n.s.
Reported ease learning to understand languages	2.38	.96	2.57	.94	-.71 n.s.
Reported ease learning to read languages	2.56	.96	2.76	.88	-.75 n.s.
Reported ease learning to speak Japanese	2.50	.97	3.07	1.04	-1.84 *
Reported ease learning to understand Japanese	2.75	1.00	2.98	1.07	-.73 n.s.
Reported ease learning to read Japanese	3.88	.89	3.69	1.02	.64 n.s.
Total hours of formal Japanese study	1295	715	880	535	2.40 **
No. of years of intensive Japanese study	.953	.88	.448	.57	2.57 **
No. of years of non-intensive Japanese study	2.48	1.9	3.40	2.7	-1.23 n.s.
No. of months spent in Japan	63.75	66.0	30.74	31.4	2.59 **
Extent of speaking use at present	1.89	.77	3.01	.85	-4.50 **
Extent of listening use at present	1.64	.49	2.18	.53	-3.47 **
Extent of reading use at present	1.45	.57	2.07	.67	-3.29 **
Extent of speaking use, end formal study	2.48	1.23	.946	1.44	3.78 **
Extent of listening use, end formal study	2.22	.94	.759	1.13	4.59 **
Extent of reading use, end formal study	2.04	.91	.704	1.07	4.42 **

higher for the non-attrition group (3.40) than for the attrition group (2.48). With respect to the the number of years of intensive study, a statistically significant difference was, however, found, with the attrition group unanticipatedly reporting about one-half year more of intensive study than the non-attrition group (.953 and .448 years, respectively). A statistically significant difference was also observed for the total number of hours of Japanese instruction (including both non-intensive and intensive courses), with the greater number of hours again reported by the attrition group. By the same token, the average number of months spent in Japan for study, travel, or other reasons by the attrition group (63.75) was significantly greater than for the non-attrition group (30.74). Although the information provided with respect to this relatively small group of students is worthy of note, the total size of the sample certainly makes it necessary to view these rather counter-intuitive results with a high degree of caution.

With respect to the extent to which the participating students make current use of Japanese, and more in keeping with the anticipated tendency in this regard, the non-attrition group reported significantly greater present use of the language for speaking, listening, and reading than did the attrition group. The greatest difference in current use was shown for speaking, with the non-attrition group giving a mean use rating of 3.01 (essentially identical to the rating of "3-occasionally" on the four-point scale provided. By contrast, current use of speaking skill by the attrition group showed a mean rating of 1.89, somewhat below the "2" level representing "rarely." Somewhat lesser, but still significant, differences were found for the extent of use of Japanese listening and reading skills, with the non-attrition group in both instances reporting a somewhat higher level of current use. With respect to the extent of use of Japanese at the end of formal study, the situation is, interestingly, reversed, with the attrition group reporting somewhat higher levels of use of

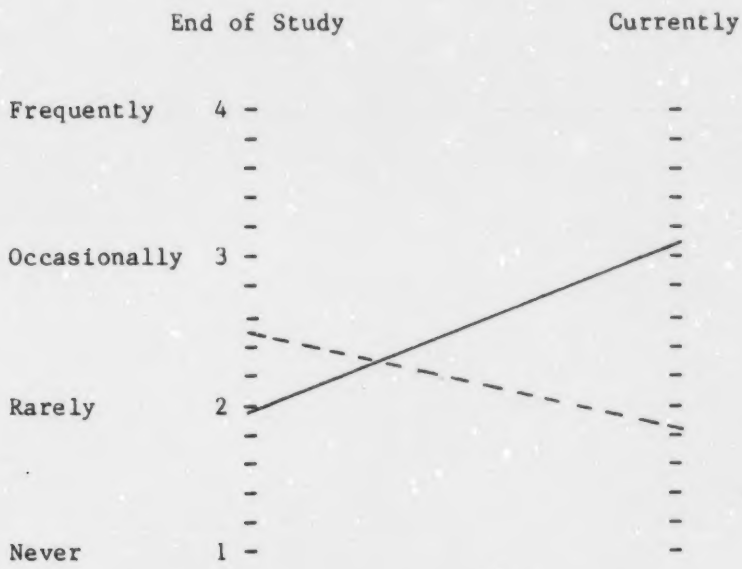
speaking, listening, and reading skills than the non-attrition group.

The extent-of-use patterns described above are reproduced graphically in Table 3.

Table 3

Reported Extent of Use of Language Skills at End of Formal Study and Currently

SPEAKING

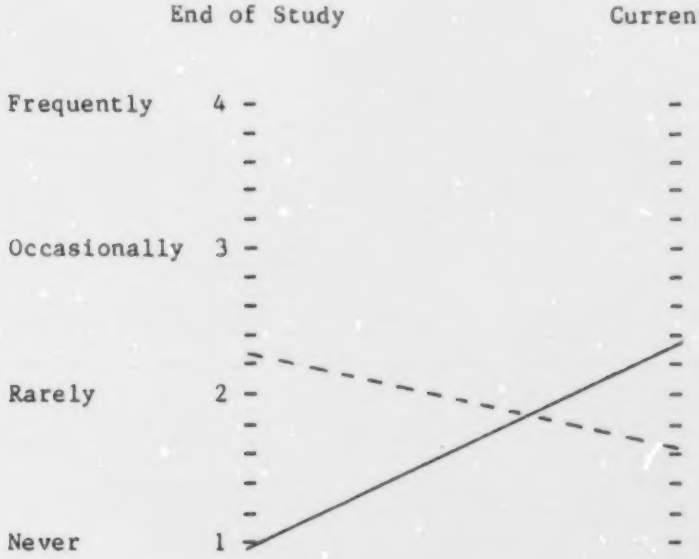


-------- = Attrition Group

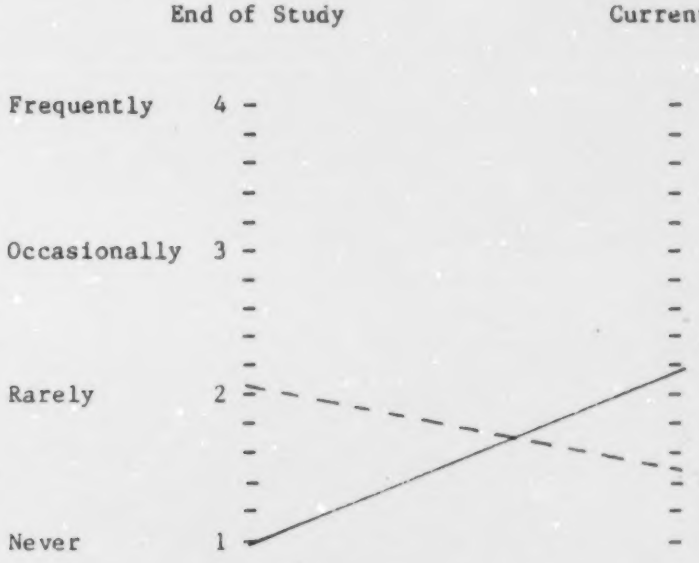
_____ = Non-Attrition Group

Table 3 (cont.)

LISTENING



READING



-------- = Attrition Group

_____ = Non-Attrition Group

On the basis of the data available to this project, it appears to be fairly clearly the case that the "non-attriting" students make appreciably greater current use of Japanese in speaking, listening, and reading than they did upon completion of their formal study. This represents, for all three skill areas, the reverse of the situation with the "attrition" students, who reported, in all three instances, relatively greater use of Japanese at the end of formal study than at the present time.

Somewhat more sensitive indications of the relationships between the extent of use or disuse of a given language skill and the degree of attrition reported both in that skill and in other skill areas may be obtained through correlational analyses of the questionnaire results for "attriting" students. In general, these results support and refine the broader analyses described above.

In addition to the single general question, "Based on your experience with Japanese, please indicate...how the level of your ability has changed in the time since you stopped formal Japanese study" (results analyzed in Tables 2 and 3), the PIF asked a series of operationally-defined questions about the student's ability or lack of ability to carry out each of a variety of tasks involving the use of Japanese in real-life functional situations, both "at present" and "at the end of formal study." In addition, the student was asked to make similar judgments based on his or her Japanese ability at "some other time" (if any) at which ability to perform these functions was greater both than "at present" and "at the end of formal study."

For purposes of classification and analysis, the specific individual questions comprising this portion of the questionnaire were grouped into four categories, addressing, respectively: oral interaction (speaking ability in conversational situations); speaking (in other than conversational situations); listening comprehension (in non-conversational settings); and reading comprehension.

Within each category, the specific questions, which were intended to constitute a rough Guttman scale of difficulty/linguistic sophistication, were as follows:

Oral Interaction

Getting around town

Interacting professionally with Japanese co-workers

Talking on the phone

Teaching a class using Japanese as the language of instruction

Speaking

Ordering a meal at a restaurant

Giving simple biographical information about yourself (e.g., place of birth, family, early schooling)

Describing your job or advanced study

Giving a talk on a familiar topic with advance preparation

Giving an extemporaneous talk on a familiar topic

Supporting a controversial position in an argument with advance preparation

Interpreting informally from English into Japanese

Listening Comprehension

Following a conversation when there are several people talking at once

Interpreting informally from Japanese into English

Reading Comprehension

Reading personal letters that are typed

Reading personal letters that are written in careful script

Reading personal letters that are written in cursive script

Reading novels or other literature

Reading professional journal articles

For each individual question, the student was asked to self-rate his or her ability to carry out the language task in question at the particular time involved ("at present," "at end of formal study," and "at some other time" [if applicable]). A four-point rating scale was used, as follows:

1 = With extreme difficulty (or not at all)

2 = With considerable difficulty

3 = With some difficulty

4 = With little or no difficulty

A similar question technique was used to measure the study participants' extent of use of Japanese language skills (regardless of their absolute level of proficiency) "at present," "at end of formal study," and, if applicable, at some "other time" at which the extent of use was greater than either the present or end of formal study. The individual questions comprising this section were categorized as conversational speaking activities (generally similar to the oral interaction category for the proficiency-judgment section of the questionnaire); listening comprehension activities; and reading comprehension activities. Individual "extent of use" questions for each of these three categories were as follows:

Speaking

Conversing with native Japanese speaker(s) at home (with relatives or friends)

Conversing with native Japanese speaker(s) in the course of your work

Conversing with native Japanese speakers(s) in the course of your daily routine (shopping, in transit)

Conversing with native Japanese speaker(s) on the telephone

Listening Comprehension

Listening to Japanese radio programs

Watching Japanese TV programs

Seeing Japanese movies

Listening to Japanese vocal music

Interpreting Japanese to English informally

Interpreting Japanese to English professionally

Reading Comprehension

Reading letters that are typed

Reading letters that are written in careful script

Reading letters that are written in cursive script

Reading newspapers or magazines

Reading novels or other literature

Reading professional journals or articles

The four-point rating scale for the "extent of use" questions was:

1 = Never

2 = Rarely

3 = Occasionally

4 = Frequently/Regularly

Both for the "proficiency" questions and "extent of use" questions, it was possible to determine the extent of attrition (if any) by subtracting the "at end of formal study" rating value from either the "at present" value or, if applicable, the "some other time" value if this was greater than the "at end of formal study." For each student, for any given category (e.g., "oral interaction"), the mean value of these calculations for all questions in that category was taken as the index of attrition for that category.

Table 4 shows the intercorrelations between "attrition in proficiency" and "attrition in extent of use" for each of the twelve possible comparisons for these two question categories.

Table 4

Intercorrelations of Decrease in Language Use with Attrition in Proficiency*

Decrease in Use of:	Proficiency Attrition in:			
	Oral Interaction	Speaking	Listening Comp.	Reading Comp.
Speaking	.46** (p=.02)	.50 (p=.02)	.41 (p=.08)	.25
Listening Comprehension	-.03	-.12	-.10	-.07
Reading Comprehension	.01	.19	.01	.47 (p=.05)

*See text for definition of categories.

**Significance levels of correlations are shown in parentheses. If not indicated, $p > .05$. Range of Ns for correlations is 16-26.

The observed data are noteworthy from several perspectives. First, for both oral interaction and (non-conversational) speaking performance, students' self-reported extent of attrition in these language skills is significantly associated with decreases in their extent of use of oral production skills in real-life situations from the time of their greatest use of speaking skills to the present.

The observed situation differs with respect to attrition in listening comprehension, in that no significant correlation was obtained between proficiency attrition in this skill and the extent of disuse of/lack of exposure to listening comprehension in non-conversational situations such as listening to Japanese radio programs, watching Japanese TV programs, seeing Japanese movies, etc. On the other hand, the reported extent of disuse/lack of exposure to conversational speaking situations (conversing with native Japanese speakers at home, at work, or during the daily travel/shopping, etc. routine)--situations which of course involve an appreciable listening comprehension component in their own right--closely approached a statistically significant correlation level with attrition in listening comprehension ability ($r=.41$; $p=.08$). It is also probable that the small number of questionnaire items constituting the "listening comprehension" scale (only two items, dealing respectively with "following a conversation when there are several people talking at once" and "interpreting informally from Japanese into English") failed to adequately sample the proficiency domain at issue.

Reported attrition in reading comprehension was significantly related ($p=.05$) to decrease in use of this skill for such purposes as reading typed or handwritten letters, newspapers, novels, and professional journal articles. There was no observed correlation between attrition in reading comprehension and lack of use of the other two skills of listening comprehension and speaking.

Bearing in mind the relatively small number of cases involved in the study, it is nonetheless possible to suggest, as an interim hypothesis subject to more detailed verification, that individuals' reported attrition in proficiency in a given language skill area is directly related to the extent to which these individuals fail to make use of these skills following completion of their formal training (or other period of greatest use of these skills). This relationship is quite clear for speaking skill (including both conversational speech and "monologue" situations such as giving oral presentations or interpreting into

the target language) and for reading proficiency. The appreciably less strong relationship observed between degree-of-use and attrition in listening comprehension may be to some extent a consequence of the relatively restricted range of questionnaire items addressed to this particular skill area and/or may suggest a somewhat different attrition pattern for listening ability (longer and more stable maintenance) than for speaking proficiency and reading comprehension. Further research will be needed to more fully elucidate this matter.

A second aspect of the correlational data offering an intriguing lead for further study is the apparent independence of speaking/listening comprehension use and attrition on the one hand and reading comprehension use-attrition on the other. Within the limited scope of the present data, there were no observed relationships between decrease in use of speaking and of listening comprehension skills and attrition in reading ability, suggesting that reading proficiency attrition may operate to some extent independently of the relative use or lack of use of listening comprehension and speaking skills.

CASE STUDIES

The following case studies are based on interviews with nine subjects, all of whom exhibit some special feature(s) of their initial Japanese language training and subsequent maintenance or attrition of language skills that help to elucidate and provide further perspectives on the empirical data reported in the preceding section. The case study interviews were conducted both with individuals currently in Japan who were actively using or attempting to re-acquire their skills in the language, and with individuals in the United States for whom "on-site immersion" or other substantial ongoing contact with Japanese was less readily available.

For each case study, the narrative account of the case study interview is preceded by a synopsis of relevant language-learning background information and proficiency data derived from student self-reports on the PIF and from results on the JPT administered at or near the time of the interview.

Case Study 1

CODE NAME: B

ATTRITION GROUP: ATTRITION

AGE: 27

SEX: F

SELF-REPORTED LANGUAGE CLASS STANDING: Top 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

- Learning to Speak FLs - 4
- Learning to Understand Spoken FLs - 3
- Learning to Read FLs - 2

- Learning to Speak Japanese - 4
- Learning to Understand Spoken Japanese - 5
- Learning to Read Japanese - 3

LEARNS BEST BY: Seeing word or phrase written out

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles.

PREVIOUS JAPANESE STUDY:

- Intensive (Years): 1.5
- Non-Intensive (Years): 1.0
- Total Hours of Study: 1,500

TOTAL MONTHS IN JAPAN: 3

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

- Listening Comprehension - Approx. 23rd
- Character Recognition - Below 4th
- Reading Comprehension - 8th

SELF-REPORTED PROFICIENCY CHANGE IN:

(1=Total or near-total loss
3=No change
5=Great gain)

- Listening Comprehension - 2
- Accurate Pronunciation - 2
- Fluency in Speaking - 1
- Grammatical Accuracy - 2
- Appropriate Use of Speech Levels - 2
- Vocabulary - 1
- Recognition of Characters - 1
- Reading Comprehension - 1

B began the study of Japanese in a reading-oriented course in an American university, but did not acquire sufficient proficiency to justify placement beyond the introductory level when she enrolled in FALCON. She completed the full-year program with a good record, and participated in a seven-week summer FALCON course in Japan, immediately following her year of intensive study.

B was a highly motivated, talented language learner. Her previous study of a number of foreign languages had stressed reading rather than oral skills, but she adapted well to the FALCON curriculum and made very good progress in all phases of the program. The summer in Japan following the year at Cornell provided her an excellent opportunity to internalize what she had learned, and she wrote enthusiastically from Japan of her excitement at being able to communicate in a foreign language.

A change in her original plan to continue the study of Japanese in conjunction with a doctoral program resulted in a lack of contact with the language totaling 2-1/2 years at the time she took the JPT under project auspices. Her scores on that instrument placed her slightly below the level of the least competent FALCONs at the conclusion of their training prior to any experience in Japan. Given her record while a student and her summer program in Japan, she would be expected to have performed at a higher level if her competence had been maintained.

B considers herself to be severely attrited, but she also believes that with review, she would be able to regain her former competence very quickly. She commented that even as the JPT progressed, she found herself remembering more and more. She provided additional reinforcement of the constantly repeated conviction that resumption of usage, in and of itself, counteracts attrition.

Case Study 2

CODE NAME: S

ATTRITION GROUP: ATTRITION

AGE: 32

SEX: M

SELF-REPORTED LANGUAGE CLASS STANDING: Top 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

- Learning to Speak FLs - 2
- Learning to Understand Spoken FLs - 2
- Learning to Read FLs - 1

- Learning to Speak Japanese - 4
- Learning to Understand Spoken Japanese - 3
- Learning to Read Japanese - 4

LEARNS BEST BY: Seeing word or phrase written out

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles

PREVIOUS JAPANESE STUDY:

- Intensive (Years): 1.25
- Non-Intensive (Years): 1.25
- Total Hours of Study: 1,455

TOTAL MONTHS IN JAPAN: 2

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

- Listening Comprehension - 3rd
- Character Recognition - Below 4th
- Reading Comprehension - 1st

SELF-REPORTED PROFICIENCY CHANGE IN:

(1=Total or near-total loss
3=No change
5=Great gain)

- Listening Comprehension - 1
- Accurate Pronunciation - 1
- Fluency in Speaking - 1
- Grammatical Accuracy - 1
- Appropriate Use of Speech Levels - 1
- Vocabulary - 1
- Recognition of Characters - 1
- Reading Comprehension - 1

S, like T [see case study # 5] studied Japanese in the FALCON program as an undergraduate, and also participated in a special summer program in Japan immediately following the year at Cornell. However, he received an S-2/R-2 rating in the FSI interview conducted at the end of the summer program--not an impressive rating by comparison to that of other students with a similar amount of training.

Prior to enrollment in FALCON, S had studied a number of Indo-European languages in courses that had emphasized reading and translation, and had also enrolled in a part-time Japanese course. He attributed his rather poor showing in the latter to the fact that he had not had enough time to devote to the course, which placed heavy emphasis on spoken skills. Accordingly, he enrolled in FALCON as a beginner and improved his proficiency noticeably by repeating the introductory portions of the curriculum.

By nature, S is extremely quiet and shy, and generally reluctant to assert himself orally, even in English. Insofar as he enjoys participating in conversation, he prefers small groups. It was not surprising that he always found it easier to comprehend oral Japanese than to speak it, and his pronunciation was consistently undistinguished.

Following his return from the summer FALCON program in Japan, S enrolled in a more advanced Japanese course, continuing his study of the written language part-time for one semester. Since leaving the university 10 years ago, he has had no further direct contact of any significance with the language.

In spite of the rather long period of attrition, S retains some proficiency. He is most familiar with the basic material he learned first. This he remembers well. He continues to be able to use ritual expressions with ease, and can readily understand elementary level conversation. With the help of a few hints, he is able to dredge up some structural patterns of intermediate difficulty, but he does not use these with facility. In some cases, a more literal English

translation of a Japanese structural pattern was a sufficient reminder to bring back the Japanese. In his delivery of the Japanese, he retains his former pronunciation and fluency.

S had never progressed beyond a low intermediate level in reading. At present, his control of Chinese characters is minimal, but he finds the kana syllabary quickly retrievable.

S hopes to return to Japanese studies in the future. He would like to start once again from the very beginning with familiar materials, not only to relearn items that have been forgotten but to acquire details and fine points that were missed when last he studied. S is obviously aware of the skill component of language acquisition and the value of thorough internalization through review. He would particularly like to develop skill in using informal Japanese, if his plans include a return to Japan. For reviewing the spoken language, he would like to study on a tutorial basis, but if he were to study the literature, he would choose a classroom situation.

S's performance on the project-administered JPT corroborated the assumption that he had attrited; however, his verbal assessment of his ability at the end of formal training and at the time of peak proficiency is extremely generous. For example, his statement that he had encountered no difficulties in comprehending Japanese after the second day following his arrival in Japan can only mean that his contact with the language was limited, that he was referring to language specifically addressed to him, and that the subject matter was constrained. His self-appraisal ratings of peak performance do not jibe with those of his instructors; in other words, the amount of actual attrition is probably less extensive than his estimates.

Case Study 3

CODE NAME: P

ATTRITION GROUP: ATTRITION

AGE: 41

SEX: F

SELF-REPORTED LANGUAGE CLASS STANDING: Third 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

Learning to Speak FLs - 3
Learning to Understand Spoken FLs - 2
Learning to Read FLs - 3

Learning to Speak Japanese - 3
Learning to Understand Spoken Japanese - 4
Learning to Read Japanese - 5

LEARNS BEST BY: Seeing word or phrase written out

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles

PREVIOUS JAPANESE STUDY:

Intensive (Years): .5
Non-Intensive (Years): 1.5
Total Hours of Study: 1,650

TOTAL MONTHS IN JAPAN: 17

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

Listening Comprehension - Approx. 8th
Character Recognition - Approx. 13th
Reading Comprehension - Approx. 2nd

SELF-REPORTED PROFICIENCY CHANGE IN:

Listening Comprehension - 2 (1=Total or near-total loss
Accurate Pronunciation - 2 3=No change
Fluency in Speaking - 2 5=Great gain)
Grammatical Accuracy - 2
Appropriate Use of Speech Levels - 2
Vocabulary - 2
Recognition of Characters - 1
Reading Comprehension - 1

P began her study of Japanese in 1965 in an intensive summer course which claimed to cover two years of regular courses. In the following semester, she was placed in a third-year course with disastrous results. She was unable to handle the language at that level, received a grade of D, and grew to dislike the language intensely.

Subsequently, P made two trips to Japan, during which she continued to work on the language--both spoken and written--making a serious effort to learn. She feels she was at her peak at the end of her second visit.

Since her return to the U.S. in 1970, her only formal contact with Japanese has been a third-year course which she audited with increasingly irregular attendance, until she finally abandoned it.

Like R [see case study #9], P's fluency exceeded her accuracy, but her ability and prognosis for the future seemed superior to his. She reflected the more extensive training she had pursued, but at the same time, she will probably always retain scars resulting from the poor pedagogical judgment that resulted in her enrollment in a class for which she was insufficiently prepared. Those areas in which she encountered severe difficulty and made very serious mistakes during her testing interview were probably those which had never been sufficiently drilled or internalized, with the result that she resorted to unfortunate attempts at translation directly from English.

P's results on the JPT were slightly lower than those of R, indicating more or less comparable comprehension and reading proficiency. Both rank themselves as rather poor language learners. However, the speaking ability of the two subjects, as demonstrated during their case study interviews, showed a difference: even with attrition, P's competence reflects a more solid foundation.

Case Study 4

CODE NAME: L

AGE: 30

ATTRITION GROUP: ATTRITION

SEX: F

SELF-REPORTED LANGUAGE CLASS STANDING: Top 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

Learning to Speak FLs - 1
Learning to Understand Spoken FLs - 2
Learning to Read FLs - 2

Learning to Speak Japanese - 1
Learning to Understand Spoken Japanese - 2
Learning to Read Japanese - 4

LEARNS BEST BY: Repeating word or phrase aloud

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles

PREVIOUS JAPANESE STUDY:

Intensive (Years): 1.0
Non-Intensive (Years): 2.7
Total Hours of Study: 872

TOTAL MONTHS IN JAPAN: 12

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

Listening Comprehension - Approx. 39th
Character Recognition - Below 4th
Reading Comprehension - Approx. 19th

SELF-REPORTED PROFICIENCY CHANGE IN:

Listening Comprehension - 2
Accurate Pronunciation - 3
Fluency in Speaking - 2
Grammatical Accuracy - 2
Appropriate Use of Speech Levels - 2
Vocabulary - 2
Recognition of Characters - 1
Reading Comprehension - 1

(1=Total or near-total loss
3=No change
5=Great gain)

A study of L provides excellent data for an attrition study, and suggests possible areas for future research.

L's initiation into Japanese was a two-week intensive introduction (six class-hours per day for 12 days) in Japan when she was a 16-year-old student who had just completed her junior year of high school. The instruction was limited to the spoken language, and for the most part consisted of repetition of vocabulary phrases with little explanation of structure. This constituted the introductory phase of a summer program which included a five-week home stay with a Japanese family and 1-1/2 weeks of travel in Japan, but involved little practice in the Japanese language.

L's subsequent college career included three years of Japanese language courses taught according to the grammar-translation method with no requirement to speak the language. Upon graduation, she returned to Japan where she enrolled in an intensive language course for a year.

L describes herself as one who learns language by communicating outside of the classroom. She lived with a Japanese family during her stay in Japan, made Japanese friends, and used the language extensively throughout this period. During her interview, she indicated she was able to use the language with ease while in Japan this second time, although her reading did not extend to reading for pleasure as a supplement to classroom assignments.

After her return to the U.S. following her year in Japan, L used Japanese less and less; at the time of her interview, she had no regular contact with it at all.

Results of the JPT test indicated that L did retain some competence in oral and written comprehension, but that her character recognition was poor. Her interview demonstrated that her speaking ability had seriously deteriorated, if she was indeed able to communicate "comfortably" in the past. She exhibited only random recollection of basic patterns, made frequent grammatical errors, and encountered difficulty in recalling even the most basic vocabulary. While

her pronunciation was good, her control of intonation patterns was weak, undoubtedly affected by her serious lack of fluency and unnatural delivery style.

L's competence suggests that aural comprehension and pronunciation tend to survive to a greater extent than other areas of ability. If L is accurate in attributing her previous speaking facility more to outside practice than to conscious, structured learning from a textbook, is there a connection with her current dramatic decline in this area? Perhaps her previous fluency was not matched by complexity or accuracy, and was in fact a fragile competence that lacked depth. Further probing of L's current ability and comparison with other attrites who nonetheless retain significantly better ability to communicate may provide further insights into the nature of language attrition.

Case Study 5

CODE NAME: T

ATTRITION GROUP: ATTRITION

AGE: 35

SEX: M

SELF-REPORTED LANGUAGE CLASS STANDING: Second 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

Learning to Speak FLs - 2
Learning to Understand Spoken FLs - 3
Learning to Read FLs - 3

Learning to Speak Japanese - 2
Learning to Understand Spoken Japanese - 3
Learning to Read Japanese - 4

LEARNS BEST BY: Hearing word or phrase repeated several times

MOTIVATION FOR LEARNING JAPANESE: Advantageous in career goals

PREVIOUS JAPANESE STUDY:

Intensive (Years): 2.0
Non-Intensive (Years): 0.5
Total Hours of Study: 1,995

TOTAL MONTHS IN JAPAN: 28

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

Listening Comprehension - Approx. 68th
Character Recognition - Approx. 65th
Reading Comprehension - Approx. 80th

SELF-REPORTED PROFICIENCY CHANGE IN:

Listening Comprehension - 2 (1=Total or near-total loss
Accurate Pronunciation - 3 3=No change
Fluency in Speaking - 2 5=Great gain)
Grammatical Accuracy - 2
Appropriate Use of Speech Levels - 2
Vocabulary - 2
Recognition of Characters - 1
Reading Comprehension - 1

T began his study of Japanese in the FALCON program. He was an undergraduate at the time, but was already planning a graduate program in economics with a Japan specialization. By the end of FALCON, he was beginning to demonstrate superior ability as a communicator, although he continued to make frequent grammatical errors; his pronunciation, fluency, and comprehension were excellent for a student with his limited background. In an FSI-type interview given informally by the regular FSI testing team in Japan immediately following FALCON, he was given an S-3, although he had had only 48 weeks of instruction.

After completing his undergraduate program a year later, he spent a year in Japan, living with a Japanese family and continuing his disciplinary research. While he did not study the language formally, he used it in his daily living, and increased his knowledge of Chinese characters through random reading.

The following year, he returned to the States to continue his graduate program in economics. A summer Japanese reading course in economics found him rusty at the beginning, but he feels that he quickly regained his former level of proficiency and increased his economics-related vocabulary.

Following a three-year gap, he returned to Japan for 19 months of advanced work in economics at a Japanese university. During the first few months of this period, he enrolled in the special Japanese language course for professionals offered by the Inter-University Center in Tokyo. Once again, he found that he was quickly able to recoup his former level of proficiency, which had suffered through lack of use of the language, and move ahead to the acquisition of more specialized vocabulary.

Now, once again after a gap of several years, T has returned to Japan. He is experiencing severe frustration, remembering what he could do at the period of his peak proficiency compared to his present ability. However, he handles general social dialogue extremely well, putting a conversation partner at ease. His pronunciation is excellent, and he retains control of hesitation noises, has

good timing, and enters into dialogue with a style which suggests his former peak level of proficiency. It is only when one probes at a deeper level that his weakened vocabulary control becomes evident, both in terms of active usage and passive comprehension, and his avoidance of complicated structural patterns is detected. He is also generally less fluent than before.

T was tested in an oral interview within a week of his return to Japan. He had clearly attrited in that he was now encountering difficulty in discussing his field of specialization in depth, as well as no longer able to comprehend radio news on non-technical subjects--two competencies that he had previously enjoyed. However, he noted that with each passing day in Japan his competence was improving, and features of the language formerly controllled were coming back. He felt that within a month in the country, he would regain his former fluency and general level of competence, although specialized vocabulary related to economics would require a more conscious effort. However, he predicted that re-mastering this area would require less time than for initial acquisition.

With regard to what he considered an optimum review/retraining program, T expressed a clear preference toward working through familiar materials again, on the grounds that, within a familiar context, the grammatical and lexical points treated in these materials would come back more quickly. He also felt that, as a result of linguistic and psychological associations developed with these materials in the course of initial training, a variety of additional language aspects would come back automatically in a way that would not be possible in working with "new" materials.

Case Study 6

CODE NAME: O

ATTRITION GROUP: ORAL ATTRITION ONLY

AGE: 64

SEX: M

SELF-REPORTED LANGUAGE CLASS STANDING: Top 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

- Learning to Speak FLs - 4
- Learning to Understand Spoken FLs - 4
- Learning to Read FLs - 4

- Learning to Speak Japanese - 4
- Learning to Understand Spoken Japanese - 5
- Learning to Read Japanese - 4

LEARNS BEST BY: Repeating word or phrase aloud

MOTIVATION FOR LEARNING JAPANESE: Not indicated.

PREVIOUS JAPANESE STUDY:

- Intensive (Years): 1.0
- Non-Intensive (Years): 2.5
- Total Hours of Study: 1,335

TOTAL MONTHS IN JAPAN: 159

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

- Listening Comprehension - Approx. 32nd
- Character Recognition - Approx. 88th
- Reading Comprehension - Approx. 93rd

SELF-REPORTED PROFICIENCY CHANGE IN:

(1=Total or near-total loss
3=No change
5=Great gain)

- Listening Comprehension - 2
- Accurate Pronunciation - 3
- Fluency in Speaking - 2
- Grammatical Accuracy - 3
- Appropriate Use of Speech Levels - 3
- Vocabulary - 2
- Recognition of Characters - 3
- Reading Comprehension - 3

O's involvement with Japanese dates back approximately 40 years, and includes intensive training with traditional pre-war textbooks and extensive residence in Japan, during which he used the spoken and written language constantly. His peak proficiency was at the 4+ level on the FSI scale, last tested about 15 years ago, at which time he used the language with complete ease, to the point where he "could fool a Japanese on the telephone for a short time."

At the time of his inteview, his contact with the Japanese was sporadic. He felt his reading ability had not attrited, but admitted that writing had definitely become more difficult. While oral skills tended to become a bit rusty, he pointed out that by returning to Japan, he was able to regain the 4+ level within a week. He felt that the return to this level of competence was often a matter of acquiring new noun compounds that represented new concepts, for example, the Japanese equivalent of "nuclear non-proliferation treaty." Fluency returned with practice, and his pronunciation, he felt, did not attrite.

O's performance on the JPT suggested a competence lower than that indicated by his background. Actually, the test posed several idiosyncratic difficulties for him. In the reading portion, his speed was reduced, he said, because most of the Japanese examples were written horizontally, while O's reading has apparently been limited to vertical texts. It is interesting to note that he was unaware of the extent to which horizontal writing was used in Japan today: he actually recomended that the test format be changed because of its English orientation! In the oral comprehension portion of the examination, there were apparently sections in which O had difficulty hearing the stimulus material.

The impromptu conversation sample that O provided indicated problems in the sociolinguistic area. However, these probably cannot be identified as

indications of attrition since it is most unlikely that he would ever have received instruction relating to such features of the language, given the period when he pursued his formal study of Japanese.

O's continuing ability in Japanese gives support to the view that a strong foreign language proficiency at the 4/4+ level attrites only superficially and can be regained rapidly, merely by exposure. The amount of re-exposure required is undoubtedly related to the length of the interval of non-use, but judging from the experience of those in this category, the return to one's earlier level of ability seems to occur with comparative ease.

Case Study 7

CODE NAME: N

ATTRITION GROUP: NON-ATTRITION

AGE: 60

SEX: M

SELF-REPORTED LANGUAGE CLASS STANDING: Second 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

Learning to Speak FLs - 1
Learning to Understand Spoken FLs - 2
Learning to Read FLs - 2

Learning to Speak Japanese - 1
Learning to Understand Spoken Japanese - 2
Learning to Read Japanese - 3

LEARNS BEST BY: Hearing word or phrase repeated several times

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles

PREVIOUS JAPANESE STUDY:

Intensive (Years): 0
Non-Intensive (Years): 3.0
Total Hours of Study: 360

TOTAL MONTHS IN JAPAN: 94

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

Listening Comprehension - Approx. 83rd
Character Recognition - Below 4th
Reading Comprehension - Approx. 48th

SELF-REPORTED PROFICIENCY CHANGE IN:

Listening Comprehension - 2 (1=Total or near-total loss
Accurate Pronunciation - 3 3=No change
Fluency in Speaking - 3 5=Great gain)
Grammatical Accuracy - 3
Appropriate Use of Speech Levels - 3
Vocabulary - 2
Recognition of Characters - 1
Reading Comprehension - 3

N's involvement with the Japanese language goes back almost thirty years. After a year of residence in Japan, he began formal study there with a private tutor, meeting with her two or three times a week for one year. Subsequently, he continued study on his own as long as he remained in Japan. He was motivated by his interest in Japan and in foreign languages rather than any professional requirement. He described language study as "fascinating and not difficult."

Following a twenty-year lapse, N resumed his Japanese language study in a U.S. university one year ago, after his retirement. At the time of his interview, he was continuing that study and felt that he was then at his peak proficiency in Japanese.

At the time of his resumption of study, N had little confidence in his ability to use Japanese, but nonetheless placed himself in the second semester of a third-year class, on the assumption that he would be able to regain his former competence with serious application.[6] His main problem was the written language, which had never been the primary focus of his Japanese language study. In spite of the long period of disuse, N found that his oral competence was still superior to that of his classmates, and he was therefore able to concentrate his efforts on reading, in order to match the level of the class in that skill. He "waded through the material" and managed to maintain a passing grade.

N expressed the belief that his level of phonological control, comprehension, and fluency underwent minimal change in spite of the long period of language disuse. During the interview, he was able to use basic patterns but committed grammatical errors and lacked control of more complex structures. His speech tended to be jerky, with many unfilled periods of silence. Nonetheless, he was able to communicate at an intermediate level, and demonstrated confidence in his use of the language.

---

[6]Most institutions place non-beginner-level students on the basis of their results on placement tests, but N was permitted to make his own decision as to placement.

Case Study 8

CODE NAME: W

ATTRITION GROUP: NON-ATTRITION

AGE: 30

SEX: F

SELF-REPORTED LANGUAGE CLASS STANDING: Top 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

- Learning to Speak FLs - 2
- Learning to Understand Spoken FLs - 2
- Learning to Read FLs - 2

- Learning to Speak Japanese - 2
- Learning to Understand Spoken Japanese - 3
- Learning to Read Japanese - 5

LEARNS BEST BY: Seeing word or phrase written out

MOTIVATION FOR LEARNING JAPANESE: Advantageous in career goals

PREVIOUS JAPANESE STUDY:

- Intensive (Years): 0
- Non-Intensive (Years): 4.0
- Total Hours of Study: 585

TOTAL MONTHS IN JAPAN: 27

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

- Listening Comprehension - Approx. 83rd
- Character Recognition - Below 4th
- Reading Comprehension - Approx. 86th

SELF-REPORTED PROFICIENCY CHANGE IN:

(1=Total or near-total loss
3=No change
5=Great gain)

- Listening Comprehension - 5
- Accurate Pronunciation - 3
- Fluency in Speaking - 4
- Grammatical Accuracy - 3
- Appropriate Use of Speech Levels - 3
- Vocabulary - 4
- Recognition of Characters - 5
- Reading Comprehension - 5

W enrolled in part-time Japanese language training as a graduate student, following residence in Japan during which she taught English and pursued very limited Japanese language study. Since she had not acquired any meaningful proficiency, she enrolled in the beginning course and continued through a regular four-year part-time curriculum which included both oral and written Japanese. Her accomplishment was outstanding: she maintained an unusually high level of achievement in all of her courses.

During her final year of coursework, her formal Japanese study was limited to a reading course, which provided only limited opportunity to practice the spoken language, and the demands of her disciplinary research further impinged on her language work. Nevertheless, her performance on the comprehension portions of the JPT was excellent--among the highest--indicating a solid grounding in the passive skills; only her recognition of characters out of context was weak.

Thesis research in Japan took W back to Japan, and a short time after her arrival, she was tested in Japan in an oral interview. Her fluency seemed slightly improved during some portions of the test, but her general delivery, and structural accuracy and complexity, seemed weak compared to the time of her peak proficiency. Most surprising was the lack of comfortable use of the language which usually comes with residence in the country following W's type of preparation. While her comprehension of the Japanese directed to her in the interview was very good, she was not able to understand a news broadcast on a topic of general interest.

Given W's background, ability, and former peak proficiency, she can be expected to show steady improvement while in Japan, provided she takes every opportunity to use the language actively and substantively on a regular basis. Her speaking proficiency seems to be reflecting her recent arrival in Japan and accompanying transition from advanced, structured classroom dialogue to free use of the language, during which even elementary errors recur and complexity is often avoided.

Case Study 9

CODE NAME: R

ATTRITION GROUP: NOT ASSIGNED

AGE: 39

SEX: M

SELF-REPORTED LANGUAGE CLASS STANDING: Third 25%

SELF-REPORTED FACILITY IN: (1=Very Easy; 5=Very Difficult)

Learning to Speak FLs - 4
Learning to Understand Spoken FLs - 3
Learning to Read FLs - 4

Learning to Speak Japanese - 4
Learning to Understand Spoken Japanese - 3
Learning to Read Japanese - 4

LEARNS BEST BY: Repeating word or phrase alound

MOTIVATION FOR LEARNING JAPANESE: Better knowledge of Japanese people and lifestyles

PREVIOUS JAPANESE STUDY:

Intensive (Years): 0
Non-Intensive (Years): 2.5
Total Hours of Study: 180

TOTAL MONTHS IN JAPAN: 24

CURRENT JPT SCORE ("ADVANCED" GROUP PERCENTILES):

Listening Comprehension - Approx. 18th
Character Recognition - Below 4th
Reading Comprehension - Approx. 10th

SELF-REPORTED PROFICIENCY CHANGE IN:

Listening Comprehension - 3
Accurate Pronunciation - 2
Fluency in Speaking - 2
Grammatical Accuracy - 2
Appropriate Use of Speech Levels - 2
Vocabulary - 2
Recognition of Characters - 2
Reading Comprehension - 2

(1=Total or near-total loss
3=No change
5=Great gain)

R is one of the subjects whose questionnaire and oral interview presented contradictory data. Accordingly, he was not assigned to any of the regular attrition categories established to classify the usual types of foreign language attrition. His interview confirmed that there was indeed a question as to his ability to rate his own Japanese language competence accurately.

R began his study of Japanese in the U.S. over ten years ago (5 semesters of coursework) and then went to Japan as a member of the Armed Forces. While in Japan during this first visit, he did not use the language, nor did he continue his studies. Following his return to the States for a two-year period, he returned to Japan and this time attempted to regain what he had lost. He experienced extreme frustration because of his lack of ability, but tried to communicate, telling himself that "grammatical mistakes didn't matter." He did not study Japanese formally.

In 1979, he returned to the U.S. and once again lost contact with Japanese, but at the time of the interview, he was preparing to resume his study of the language at the same university at which he had first studied a number of years earlier.

R was planning to join the second level of the first-year course, although he expressed the wish that he could enter an intermediate course in the spoken language and a beginning course in reading and writing, were such a combination possible. Both his actual placement and his preference were based on self-appriasal; he had not undergone any placement tests that might have given him an objective judgment of his ability.

An informal check administered at the time of his interview suggested a clear overrating of his own speaking proficiency. His conviction that communication can be achieved without being concerned about grammar might not be shared by a Japanese native speaker trying to understand him. He had virtually no control of Japanese structure, was weak on morphology and pronounciation, had

no apparent awareness of Japanese sociolinguistics, and, all-in-all, spoke jumbled Japanese. Without thorough grounding in the elementary patterns, he seemed ill-advised to resume Japanese at anything but the introductory level.

Given the nature of the errors R made, it is questionable whether he ever was as proficient as he believes. Based on the data provided by other attrited subjects, there is little support for a change as dramatic as his case would imply. In this instance, the evidence points to a student who studied a limited amount of Japanese (which he found difficult), and then tried to use this as the basis for communication in the field several years later. With no linguistic guidance as to how to proceed, his period in Japan seems to have resulted in minimal progress. The kind of Japanese he speaks today suggests that at no point has he ever really been able to speak structurally and stylistically appropriate Japanese, even at the elementary level.

SUMMARY AND RECOMMENDATIONS

Despite the relatively small number of students for whom it proved possible to obtain detailed data for this study, several worthwhile developmental activities as well as a variety of data-based, although necessarily provisional, analysis results concerning the nature and course of Japanese language skill loss can be reported as project outcomes. These are summarized below.

(1) From a developmental standpoint, the detailed student language background and use questionnaire (PIF) prepared and administered under the project represents, to the knowledge of the investigators, the most highly focused and most thoroughgoing instrument currently available for obtaining student-based information on language learning background, previous and present language skill levels, and other data relevant to the study of language attrition. External validation of several of the categories of information dealt with in the PIF--both through statistical correlation of student self-reported proficiency ratings to the more direct measures of listening comprehension and reading proficiency provided by the Japanese Proficiency Test, as well as through additional information obtained in the course of the case study interviews--suggests that the PIF is capable of eliciting meaningful and reliable attrition-relevant data. Used on a larger scale and in conjunction with administration of the JPT and other instruments capable of directly measuring language performance levels at given stages in the student's language-use history, the PIF in its present form (or with relatively minor revisions) could be expected to provide a major source of interpretive data for use in further attrition studies.

(2) Bearing in mind the cautions on interpretation imposed by the small number of cases involved, it is informative to note that in this study no differences were found between "attriting" and "non-attriting" students in the

reported ease with which they were able to learn foreign languages in general or Japanese in particular. Follow-up studies, including administration of explicit language aptitude measures such as the Modern Language Aptitude Test or the Pimsleur Language Aptitude Battery would of course be needed to confirm these initial student-based reports.

(3) With respect to type and duration of language study, the data obtained in the current project showed no significant differences between attriting and non-attriting students in the total number of years of formal, non-intensive Japanese study. By the same token, and quite unanticipatedly, the "attrition" group reported about one-half year more of intensive Japanese study than did the non-attrition group, as well as a greater total number of hours of instruction. On the reasonable hypothesis that the amount of formal classroom study of Japanese in either a regular or intensive setting would, at the very least, be a neutral influence on eventual language skill attrition (all other potential contributing factors held constant), and most probably a positive influence in counteracting attrition, it would appear necessary to view the obtained data with a considerable amount of caution. Replication with a considerably larger group of students, which would make possible the separation of the total group into a series of analytic sub-groups based on the highest level of proficiency achieved (see discussion later in this section) would be necessary in order to more fully and more accurately probe the amount-of-formal-study/degree of attrition relationship.

(4) A major finding of the study, which was borne out in both the attrition-group/non-attrition group comparisons and in finer-grained analyses within the attrition group itself, was the clear indication that, for both speaking proficiency and reading comprehension, reported decreases in language proficiency since the time of maximum performance are directly related to decreases in the extent to which these skills are in fact currently being used.

While this does not constitute a major conceptual breakthrough (in that the common assumption among students, instructors, and others involved in foreign language study has been that one either "uses it or loses it"), the project data do provide some experimental validation of this assumption for the two skill areas in question. With respect to listening comprehension, the data are less clear-cut, due possibly to any of a number of factors, including the relatively few questionnaire items addressing listening comprehension per se, actual differences in attrition patterns for listening by comparison to the other two skill areas, or some combination of these or other variables. In this connection, it is interesting to note that in several of the case study interviews (cf. case studies 4, 6, and 7), the students indicated that their listening comprehension ability had remained fairly high or had very quickly reappeared with exposure to spoken Japanese.

(5) Related to item 4 is a reasonably strong suggestion from the project data of some degree of skill specificity in attrition patterns, that is, the general lack of relationship between attrition in a given skill and the amount of use or disuse of language skills other than the skill in question. As indicated in Table 4 (p. 26), no significant correlation was shown between decrease in use of speaking and listening skills on the one hand and reading proficiency attrition on the other; or, by the same token, between decrease in use of reading skills and listening/speaking proficiency attrition. From a pedagogical viewpoint, this would seem to suggest that students wishing to maintain a high level of proficiency both in oral interaction ability and in reading comprehension would need to make active use of each of these skills on an ongoing basis, and that continual listening/speaking exposure in the absence of reading opportunities would not suffice to keep the latter skill at a high level, nor would exposure exclusively to printed materials be sufficient to guarantee maintenance of oral/aural skills.

(6) In addition to the empirical results of the study, the case study interviews tend in many cases to corroborate the group data analyses as well as to suggest additional hypotheses for further investigation. In the latter category, a number of interviewees observed that relatively short, immersion exposure to the language upon their return to Japan allowed them to regain very quickly a substantial amount of their original ability, at least for the kinds of language skill at issue in daily interaction contexts. Although the detailed nature and total scope of language re-acquisition that may be attributed to the "in-country immersion" process (in and of itself and in the absence of more formal re-training activities) will need to be probed more thoroughly in subsequent investigations, there are fairly clear indications from the present study that renewed exposure to Japanese in real-life cultural and language-use settings is both a rapid and powerful means of re-acquisition, at least for those students who enjoyed a good functional control of the language by the end of their formal training.

(7) An interesting case study aspect which also warrants follow-up is the observation by at least one student that the review of familiar textbooks would provide for more rapid and more thorough re-acquisition than would a corresponding amount of work with new materials, on the grounds that re-study of the original materials would evoke a variety of linguistic and situational associations established during the initial training and thus bring back a greater amount and extent of previously-learned material than would be the case if the same language elements were studied in a new and non-familiar context. If this were in fact the case, as verified on a more widespread basis than was possible in this initial study, a direct implication for materials development would be to prepare the original teaching materials with a deliberate view to having them used for re-training as well as original acquisition purposes. For example, on the presumption that re-acquiring students would not need the same type of

grammatical explanation, practice drills, etc. required for the initial training, the inclusion of detailed synopses of the relevant instructional points, together with selected additional drills and other exercises, might substantially assist the re-acquiring student in making the most effective use of these materials.

With regard to the areas of further development and research that can be identified on the basis of the present study, the following are among the most salient and, in our opinion, the most crucial to the continuing investigation of language attrition phenomena in a thorough and effective manner.

(1) The present project was able to make use of valid and reliable measures of general student proficiency in Japanese in two skill areas: listening comprehension and reading. It is considered vital to the adequate investigation of attrition in the productive skill area of <u>speaking</u> that a valid and objective test be made available of the student's actual ability to communicate orally in realistic speaking situations. In this regard, face-to-face interviews of the FSI type provide a well-known and readily interpretable standard of performance from the standpoint of general proficiency. However, in and of itself, the FSI-type interview and associated rating scale do not provide for a highly detailed appraisal of relatively fine-grained changes in student performance. For example, a student administered an FSI-type interview on completion of training and again at some designated "attrition-checking" point might, due to the broad nature of the scale, receive a rating of "2" on both occasions, even though he or she were personally aware of the loss of particular structures, lexicon, or other language features that would in fact be determinable through the use of a more highly diagnostic, individual-language-element testing procedure. A suggested optimum approach would be to make use of a test battery

that provided, in total, for both a general assessment of proficiency level on an FSI-type scale and a more highly diagnostic probing of individual language elements on an item-by-item basis. Development of the latter type of testing procedure is currently the major focus of the large-scale Language Attrition Project described earlier in this report. With respect to general proficiency measurement of the FSI type, a proposal for the development of a tape-based test of speaking proficiency in Chinese, ratable on the FSI scale, has been submitted to the Department of Education for possible initiation in the late summer or fall of 1984. If this project is funded, it is the intention of the co-directors to invite, as observer/participants in the project, representatives from both the Japanese and Hindi language areas; in this way, it may be possible to provide information relevant to the development of a similar instrument in Japanese in a a straightforward and cost-effective way.

(2) The analyses reported in the present study are based on the combined responses of those students who reported any degree of attrition in Japanese, without regard to the initial level of proficiency from which this attrition had taken place. This approach was dictated both by the relatively small size of the total attrition group, as well as by the advisability of investigating more general trends and features within this rather new area of research before undertaking (or, indeed, before being in a position to undertake) more highly focused analyses. It is recommended that further studies (which, as a practical matter, would need to involve considerably greater numbers of students than were available in the present study and possibly require the collaboration of government language schools or other institutions having very large student populations available for both initial and follow-up testing) be planned so as to include, in addition to whole-group analyses, the separate analysis of attrition patterns for each of several sub-groups, categorized according to the overall

proficiency level of the students on completion of their training program. It would in this way be possible to determine, for example, whether there is a critical point in overall language proficiency below which attrition is rapid and extensive, but at and above which, a large proportion of the initially acquired material is retained. The informal experience of a number of Foreign Service Institute language instructors and testers is that level 3 on the FSI scale does appear to represent such a "watershed" point; if this were indeed shown to be the case through controlled experimentation, a strong implication for curriculum and program design would be to insure that students seriously intending to acquire Japanese or other languages for "lifelong" purposes would in fact be brought to at least this level of proficiency by the end of their initial language training. Even more detailed analyses in this particular area may result in the identification of individual (and differing) watershed levels for each of the separate language skill areas; for example, a somewhat higher level may be found for maintenance of spoken production than for maintenance of listening comprehension. Although analyses in this degree of detail were not possible within the student sample size available to the present project, the general procedures used, as well as the instrumentation available in the JPT, the project-developed background questionnaire, and potential additional measures of direct speaking proficiency should, in large part, provide the means to effectively carry out these additional investigations.

Appendix A

Language Attrition Project: Personal Information Form

Through this questionnaire we are trying to construct a detailed profile on what type of language learner you are in general. In addition, we are interested in how, when, where, and why you studied or learned Japanese, and to what extent, for what purpose, and in what contexts you have used the language before, during, and after any formal training you may have had in Japanese.

As this is a study in language attrition, we are particularly interested in those individuals who have not studied Japanese formally for some time and who may be, for one reason or another, more proficient or less proficient in certain aspects of the language than they once were. The information asked for in the box below is for purposes of follow-up questioning, should any be necessary, and to help us correlate the data we collect. This information will not be used in any way in reports of the findings.

---

1. Name _____ 2. Date _____

3. Address:(Present) _____

_____ (Phone) _____

(Permanent) _____

_____ (Phone) _____

---

4. Date of birth _____ 5. Sex M__ F__

6. Place of birth (country) _____ 7. Native Language _____

8. Please list any language(s) other than English, including Japanese if applicable, that were spoken regularly in your home while you were growing up.

Language

_____
_____
_____

9. Please list any language(s), including Japanese if applicable, studied in elementary school or secondary school. Please circle each school year in which you studied the language.

Language												
_____	1	2	3	4	5	6	7	8	9	10	11	12
_____	1	2	3	4	5	6	7	8	9	10	11	12
_____	1	2	3	4	5	6	7	8	9	10	11	12

Guidelines for Rating Language Proficiency (in question 11)

A. Listening and Speaking

Level 0 My speech in the language is limited to a few words and I have great difficulty understanding the language, even when it is spoken very slowly. I cannot really communicate any information in the language.

Level 1 I understand simple questions and statements if they are spoken slowly and sometimes repeated, and can ask and answer questions about very familiar subjects. My vocabulary is limited to basic needs (food, asking directions, greeting people, and so forth). Control of grammar is very limited.

Level 2 I can talk with native speakers of the language about myself, my family, my job or studies, hobbies, and current events. I can understand most conversations on these topics except when the speech is very fast. My grammar is fairly good but I still make frequent mistakes.

Level 3 I can understand almost everything addressed to me by native speakers of the language. I usually have sufficient vocabulary to express what I want to say. I make very few grammar mistakes. My pronunciation does not interfere with native speakers' ability to understand me.

Level 4 I can usually understand native speakers of the language even when they are speaking among themselves and using sophisticated or colloquial expressions. My vocabulary is extensive, even for technical matters, and I can talk fluently and accurately about almost any subject with which I am familiar.

Level 5 My speech is indistinguishable from that of an educated native speaker of the language.

B. Reading

Level 0 I cannot really read anything in the language, or can read only a few words that I have "memorized."

Level 1 I can read only material that is limited to basic vocabulary and simple grammatical structures, and for non-alphabetic languages, material that contains only the most frequently occurring symbols.

Level 2 With extensive use of a dictionary, I can grasp the essential meaning of printed materials such as newspaper and magazine articles addressed to the general reader.

Level 3 With moderate use of a dictionary, I can understand quite well newspaper and magazine articles intended for the general reader, personal correspondence, and some material addressed to non-specialists in fields with which I am familiar. I continue to have difficulty with unusually complex structures and specialized expressions.

Level 4 With only occasional use of the dictionary, I can read any prose directed at the general reader and most specialized material in fields with with which I am familiar.

Level 5 My reading ability is equivalent to that of a university-educated native speaker.

10. Please list any language(s), including Japanese, studied at college or university (undergraduate or graduate level). As in question 9, please circle each year in which you studied the language.

Language								
_____	Fresh.	Soph.	Jr.	Sr.	Grad-1	Grad-2	Grad-3	Grad-4
_____	Fresh.	Soph.	Jr.	Sr.	Grad-1	Grad-2	Grad-3	Grad-4
_____	Fresh.	Soph.	Jr.	Sr.	Grad-1	Grad-2	Grad-3	Grad-4
_____	Fresh.	Soph.	Jr.	Sr.	Grad-1	Grad-2	Grad-3	Grad-4

11. On the facing page are a set of "Guidelines for Rating Language Proficiency" which describe 6 levels of proficiency (0-5) in listening/speaking and 6 levels in reading comprehension. After you have read the proficiency guidelines carefully, for each language that you listed in questions 8, 9, or 10 (including Japanese), please write, in the parentheses provided below, the number corresponding to the guideline-level description that best characterizes the maximum proficiency you attained in each of the two skill areas -listening/speaking, and reading. (Note that your proficiency level may not be the same for these separate skill areas.) Then, please give the approximate dates at which your proficiency in the language was(or is) at its highest for each of the skill areas listed.

If the number of languages listed above exceeds four, please give responses for Japanese and for the three other languages in which you were/are most proficient.

Language	Skill	Level	Approximate Date
	Listening/ Speaking	( )	_____
	Reading	( )	_____
	Listening/ Speaking	( )	_____
	Reading	( )	_____
	Listening/ Speaking	( )	_____
	Reading	( )	_____
	Listening/ Speaking	( )	_____
	Reading	( )	_____

12. Please indicate in which quartile of your language classes you usually found yourself in relation to the other students in the class.

___ Top 25%
___ Second 25%
___ Third 25%
___ Bottom 25%

13. Please indicate on the following scale how easy or difficult the activities listed below are or have been for you.

	very easy 1	2	3	4	very difficult 5
a. learning to speak a foreign language	___	___	___	___	___
b. learning to understand a foreign language when it is spoken	___	___	___	___	___
c. learning to read a foreign language	___	___	___	___	___
d. learning to speak Japanese	___	___	___	___	___
e. learning to understand spoken Japanese	___	___	___	___	___
f. learning to read Japanese	___	___	___	___	___

14. How do you think you best learn a new word or phrase in a foreign language? (Check one.)

___ a. by hearing the word or phrase repeated several times
___ b. by repeating the word or phrase aloud to yourself
___ c. by seeing the word or phrase written out

15. If you are working on, or have completed, one or more graduate level degrees that involve/involved using Japanese language skills in the preparation of a thesis, please indicate the topic(s) and the extent to which you used Japanese in connection with the thesis.

a. Master's Thesis Topic _____

	not at all 1	2	3	4	a great deal 5
I used my ability to understand spoken Japanese	___	___	___	___	___
I used my ability to speak Japanese	___	___	___	___	___
I used my ability to read Japanese	___	___	___	___	___

b. Doctoral Thesis Topic _____

	not at all 1	2	3	4	a great deal 5
I used my ability to understand spoken Japanese	___	___	___	___	___
I used my ability to speak Japanese	___	___	___	___	___
I used my ability to read Japanese	___	___	___	___	___

16. If you had to characterize your reasons for wanting to learn Japanese as one of the two statements below, which would you say better reflects your motivation? (Please check only one.)

___ a. I wanted to learn Japanese because I was attracted to Japanese customs and lifestyles, and I wanted to get to know better the Japanese people.

___ b. I wanted to learn Japanese because I believed it would be advantageous, in the pursuit of my career goals, to know the language.

Guidelines for completing grid on formal classes taken in Japanese

A. Course: Indicate title, or type, or level of course, (e.g. Japanese I, Intensive Japanese II, Heian Poetry)

B. Institution: Write name of institution where course was taken.

C. Grade level: Write the number that corresponds to your grade level when the course was taken.

grade school = 1-6
secondary school = 1-7
undergraduate = 13-16
graduate = 17-20

D. Duration: Indicate number of semesters or quarters that course was taken. Use column D-SEM for semesters and column D-QTR for quarters. Fill in only one D column for each course listed.

For grade school and secondary school courses:
half year = 1 semester
full year = 2 semesters

For undergraduate and graduate level courses:
one year = 2 semesters or 3 quarters
summer course = 1 semester

E. Hours/week: Write in the number of scheduled contact hours per week.

F. Instructor: Language Indicate the native language(s) of instructor(s).

1 = only native Japanese speaker(s)
2 = only native speakers of a language other than Japanese
3 = some combination of 1 and 2

G. Emphasis: Indicate main emphasis of the course.

1 = primary stress on listening and speaking skills
2 = primary stress on reading skills
3 = more or less equal stress on both

H. Language: Indicate the type of language studied.

M = modern Japanese
C = classical Japanese

17. First, using the grid below, please list all the formal courses you have taken in Japanese. Include both courses aimed at providing basic language skills as well as courses in which Japanese was the language of instruction (e.g. literature courses, linguistics or language structure courses.) Then, using the guidelines printed on the facing page, complete the grid by filling in the information asked for in each column.

A Course	B Institution	C Grade level	D Duration SEM	D Duration QTR	E Hours/week	F Instructor	G Emphasis	H Language

In addition to formal language courses that you have taken, we are also interested in any other contact or experiences you have had with the Japanese language.

18. Please list visits you have made to Japan of longer than one month duration. Give the inclusive dates (approximate if necessary), of each visit and use the following code to indicate the purpose of your visit.

Student-S; Research-R; Teaching-T; Journalism-J; Military Service-MS; Other Government Service-GS; Missionary-M; Residency during childhood-C; Pleasure (tourism, visiting relatives,...)-P; Other-O.

Lastly, please indicate the extent of your language use for each visit for each of the following skills; listening, speaking, and reading. Use the scales provided to rate use.

If you have made more than four trips to Japan, please use the space provided in the Purpose of visit column to indicate, in a single description, the nature of your trips, specify the total length of stay, and estimate the extent of your use of the language skills listed.

Purpose of visit	Dates	Language Skills	Extent of Use				
			little/ no use 1	2	3	4	extensive use 5
		a. listening	___	___	___	___	___
		b. speaking	___	___	___	___	___
		c. reading	___	___	___	___	___
		a. listening	___	___	___	___	___
		b. speaking	___	___	___	___	___
		c. reading	___	___	___	___	___
		a. listening	___	___	___	___	___
		b. speaking	___	___	___	___	___
		c. reading	___	___	___	___	___
		a. listening	___	___	___	___	___
		b. speaking	___	___	___	___	___
		c. reading	___	___	___	___	___

19. In this question, you are asked to rate the extent to which you use or used your Japanese language skills (regardless of your level of proficiency) at each of two different times: (A) at present, and (B) just at the end of your formal academic study of Japanese.

First, please follow the instructions below to mark, in column A, the extent to which you use your Japanese language skills, for each of the listed purposes, at the present time (regardless of your level of proficiency).

If you never use Japanese for the purpose listed, check 1.
If you use Japanese only rarely for this purpose, check 2.
If you use Japanese occasionally for this purpose, check 3.
If you use Japanese regularly for this purpose, check 4.

Remember that column A refers to the extent to which you use Japanese at the present time, regardless of your proficiency level. If, for example, your proficiency level is such that you are readily able to "listen to Japanese radio programs" but in fact never do so at the present time, you should mark 1 ("never") for this item. Now please fill out column A completely before continuing with the instructions below.

Second, please follow the same 1-4 coding system shown above to mark, in column B, the extent to which you used your Japanese skills for each of the listed purposes just at the end of your formal academic study of the language. If you are still studying Japanese in a formal academic setting, skip column B and go on to the next paragraph. If you are not currently studying Japanese formally, think back carefully about the extent of your use of Japanese at the time you completed your formal study and mark column B accordingly.

Third, please re-read carefully each of the activity descriptions shown in the table and ask yourself, for each, whether you carried out that activity more extensively at some time other than either presently or just at the end of your formal Japanese study. For any such activity(ies), place a check mark on the appropriate line of column C and using the space in the margin, describe in as few words as possible the circumstances surrounding the period of your greatest use.

Activity	(A) At present				(B) At end of formal study				(C) At some other time			
	Never	Rarely	Occasionally	Frequently/ Regularly	Never	Rarely	Occasionally	Frequently/ Regularly	Never	Rarely	Occasionally	Frequently/ Regularly
	1	2	3	4	1	2	3	4	1	2	3	4
a. Conversing with native Japanese speaker(s)												
1. at home (with relatives or friends)..	___	___	___	___	___	___	___	___	___	___	___	___
2. in the course of your work.....	___	___	___	___	___	___	___	___	___	___	___	___
3. in the course of your daily routine (shopping, in transit)	___	___	___	___	___	___	___	___	___	___	___	___
4. on the telephone	___	___	___	___	___	___	___	___	___	___	___	___

Activity	(A) At present				(B) At end of formal study				(C) At some other time			
	Never 1	Rarely 2	Occasionally 3	Frequently/ Regularly 4	Never 1	Rarely 2	Occasionally 3	Frequently/ Regularly 4	Never 1	Rarely 2	Occasionally 3	Frequently/ Regularly 4
b. Listening to Japanese radio programs.	___	___	___	___	___	___	___	___	___	___	___	___
c. Watching Japanese TV programs	___	___	___	___	___	___	___	___	___	___	___	___
d. Seeing Japanese movies	___	___	___	___	___	___	___	___	___	___	___	___
e. Listening to Japanese vocal music ...	___	___	___	___	___	___	___	___	___	___	___	___
f. Reading letters												
1. that are typed	___	___	___	___	___	___	___	___	___	___	___	___
2. that are written in careful script ..	___	___	___	___	___	___	___	___	___	___	___	___
3. that are written in cursive script ..	___	___	___	___	___	___	___	___	___	___	___	___
g. Reading newspapers or magazines	___	___	___	___	___	___	___	___	___	___	___	___
h. Reading novels or other literature ...	___	___	___	___	___	___	___	___	___	___	___	___
i. Reading professional journals or articles	___	___	___	___	___	___	___	___	___	___	___	___
j. Reading classical Japanese	___	___	___	___	___	___	___	___	___	___	___	___
k. Translating Japanese articles or books into English	___	___	___	___	___	___	___	___	___	___	___	___
l. Interpreting Japanese to English informally	___	___	___	___	___	___	___	___	___	___	___	___
m. Interpreting Japanese to English professionally	___	___	___	___	___	___	___	___	___	___	___	___

20. In this question, you are asked to indicate the degree of ease or difficulty with which you are (or were) able to carry out each of the activities listed below at each of two different times: (A) at present, and (B) just at the end of your formal academic study of Japanese.

First, please follow the instructions below to mark, in column A, the degree of ease or difficulty with which you are presently able to carry out each of the following activities, using acceptable and appropriate Japanese.

Use the following scale:

1 = with extreme difficulty (or not at all)
2 = with considerable difficulty
3 = with some difficulty
4 = with little or no difficulty

Second, please follow the 1-4 coding system above to indicate, in column B, the degree of ease or difficulty with which you were able to carry out each of the following activities, using acceptable and appropriate Japanese, just after completing your formal academic study of the language. If you are still studying Japanese in a formal academic setting, skip column B and go on to the next paragraph.

Third, please re-read carefully each of the activity descriptions shown in the table and ask yourself, for each, whether you were able to carry out that activity, using acceptable and appropriate Japanese, with greater ease/facility at some time other than either presently or just at the end of your formal Japanese study. For any such activity(ies), place a mark on the appropriate line of column C, and using the space in the margin, describe in as few words as possible, the circumstances involved in this period of greatest facility.

Activity	(A) At present				(B) At end of formal study				(C) At some other time			
	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty
	1	2	3	4	1	2	3	4	1	2	3	4
a. Giving simple biographical information about yourself (e.g. place of birth, family, early schooling)	___	___	___	___	___	___	___	___	___	___	___	___
b. Describing your job or advanced study	___	___	___	___	___	___	___	___	___	___	___	___

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Activity	(A) At present				(B) At end of formal study				(C) At some other time			
	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty
	1	2	3	4	1	2	3	4	1	2	3	4
c. Interacting professionally with Japanese co-workers	___	___	___	___	___	___	___	___	___	___	___	___
d. Getting around town	___	___	___	___	___	___	___	___	___	___	___	___
e. Ordering a meal at a restaurant	___	___	___	___	___	___	___	___	___	___	___	___
f. Talking on the phone	___	___	___	___	___	___	___	___	___	___	___	___
g. Following a conversation when there are several people talking at once	___	___	___	___	___	___	___	___	___	___	___	___
h. Supporting a controversial position in an argument with advance preparation .	___	___	___	___	___	___	___	___	___	___	___	___
i. Giving a talk on a familiar topic with advance preparation	___	___	___	___	___	___	___	___	___	___	___	___
j. Giving an extemporaneous talk on a familiar topic	___	___	___	___	___	___	___	___	___	___	___	___
k. Teaching a class using Japanese as the language of instruction	___	___	___	___	___	___	___	___	___	___	___	___
l. Reading personal letters												
1. that are typed	___	___	___	___	___	___	___	___	___	___	___	___
2. that are written in careful script	___	___	___	___	___	___	___	___	___	___	___	___
3. that are written in cursive script	___	___	___	___	___	___	___	___	___	___	___	___

Activity	(A) At present				(B) At end of formal study				(C) At some other time			
	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty	Extreme difficulty	Considerable difficulty	Some difficulty	Little or no difficulty
	1	2	3	4	1	2	3	4	1	2	3	4
m. Reading novels or other literature ...	___	___	___	___	___	___	___	___	___	___	___	___
n. Reading professional journal articles	___	___	___	___	___	___	___	___	___	___	___	___
o. Reading a classical form of Japanese..	___	___	___	___	___	___	___	___	___	___	___	___
p. Translating in general terms Japanese news stories into English	___	___	___	___	___	___	___	___	___	___	___	___
q. Translating precisely Japanese news stories into English	___	___	___	___	___	___	___	___	___	___	___	___
r. Translating in general terms English news stories into Japanese	___	___	___	___	___	___	___	___	___	___	___	___
s. Translating precisely English news stories into Japanese	___	___	___	___	___	___	___	___	___	___	___	___
t. Interpreting informally from Japanese into English	___	___	___	___	___	___	___	___	___	___	___	___
u. Interpreting informally from English into Japanese	___	___	___	___	___	___	___	___	___	___	___	___

21. Based on your experience with Japanese, please indicate for each of the areas listed below how the level of your ability has changed in the time since you stopped formal Japanese study. (If you are still studying Japanese formally, skip this question.)

Language Areas	total, or near total loss		no change		great gain
	1	2	3	4	5
a. listening comprehension	___	___	___	___	___
b. accurate pronunciation	___	___	___	___	___
c. fluency in speaking	___	___	___	___	___
d. grammatical accuracy	___	___	___	___	___
e. appropriate use of speech levels	___	___	___	___	___
f. vocabulary	___	___	___	___	___
g. recognition of characters	___	___	___	___	___
h. reading comprehension	___	___	___	___	___

22. If there is some aspect of your experience with the Japanese language and its speakers that is not touched on in this questionnaire, please use the space below to make any additional comments.

Thank you very much for your time and cooperation in assisting with this project!